

Heller Ehrman White & McAuliffe LLP
Attorney Docket No. 39078-0005

U.S. Serial No. 10/633,630
Gilesc *et al.*

IN THE CLAIMS

1-10. (Canceled).

11. (Currently amended) A ribonucleic acid molecule comprising a double stranded structure having a first and second strand,

wherein the first strand comprises a first stretch of contiguous nucleotides that is at least partially complementary to a target nucleic acid,

wherein the second strand comprises a second stretch of contiguous nucleotides that is at least partially identical to a target nucleic acid,

wherein said first ~~strand~~ stretch and/or said second ~~strand~~ stretch comprises a pattern of a plurality of groups of modified nucleotides having a modification at the 2'-position,

wherein each group of modified nucleotides within a ~~strand~~ stretch is flanked on one or both sides by a flanking group of nucleotides,

wherein said flanking nucleotides forming the flanking group of nucleotides is either an unmodified nucleotide or a nucleotide having a modification different from the modification of the modified nucleotides.

12. (Original) The ribonucleic acid according to claim 11, wherein each of said groups of modified nucleotides consists of one to ten nucleotides and wherein each of said groups of flanking nucleotides consists of one to ten nucleotides.

13. (Currently amended) The ribonucleic acid according to claim 11, wherein the pattern of modified nucleotides of said first ~~strand~~ stretch is the same as the pattern of modified nucleotides of said second ~~strand~~ stretch.

14. (Currently amended) The ribonucleic acid according to claim 11, wherein the pattern of modification of said first ~~strand~~ stretch aligns with the pattern of modification of said second ~~strand~~ stretch.

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15. (Currently amended) The ribonucleic acid according to claim 11, wherein the pattern of modification of said first ~~strand~~ stretch is shifted by one or more nucleotides relative to the pattern of modification of the second ~~strand~~ stretch.

16. (Original) The ribonucleic acid according to claim 11, wherein said modification is selected from the group consisting of amino, fluoro, methoxy, alkoxy and alkyl modifications.

17. (Original) The ribonucleic acid according to claim 11, wherein said double stranded structure is blunt ended at one or both ends.

18. (Original) The ribonucleic acid according to claim 11, wherein at least one of the two strands has an overhang of at least one nucleotide at the 5'-end.

19. (Currently amended) The ribonucleic acid according to claim ~~1~~ 11, wherein the complementarity between said first strand and the target nucleic acid is perfect.

20. (Currently amended) The ribonucleic acid according to claim ~~1~~ 11, wherein the duplex formed between the first strand and the target nucleic acid comprises at least 15 nucleotides and wherein there is one mismatch or two mismatches between said first strand and the target nucleic acid in said double-stranded structure.

21. (Original) The ribonucleic acid according to claim 11,
wherein said first strand and said second strand each comprise at least one group of modified nucleotides and at least one flanking group of nucleotides,
wherein each group of modified nucleotides of the first strand is aligned with a flanking group of nucleotides on the second strand,
wherein the terminal 5' nucleotide of the first strand is a modified nucleotide, and
wherein the terminal 3' nucleotide of the second strand is a flanking nucleotide.

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22. (Original) The ribonucleic acid according to claim 21, wherein each group of modified nucleotides consists of a single nucleotide and/or each flanking group of nucleotides consists of a single nucleotide.

23. (Original) The ribonucleic acid according to claim 22,
wherein on the first strand the nucleotide forming the flanking group of nucleotides is an unmodified nucleotide which is arranged in a 3' direction relative to the nucleotide forming the group of modified nucleotides, and

wherein on the second strand the nucleotide forming the group of modified nucleotides is a modified nucleotide which is arranged in 5' direction relative to the nucleotide forming the flanking group of nucleotides.

24. (Canceled)

25. (Original) The ribonucleic acid according to claim 11 wherein the first strand and the second strand are linked by a loop structure.

26. (Original) The ribonucleic acid according to claim 25, wherein said loop structure comprises a non-nucleic acid polymer.

27. (Original) The ribonucleic acid according to claim 25, wherein said loop structure is comprised of a nucleic acid.

28. (Withdrawn) A method for inhibiting the expression of a target gene, comprising contacting a nucleic acid encoding said target gene with a ribonucleic acid according to claim 1.

29. (Currently amended) A pharmaceutical composition comprising a ribonucleic acid according to claim 1 and a pharmaceutically acceptable carrier.

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30. (Withdrawn) A method of treating a disease in a patient, comprising reducing expression of a target gene in said patient by administering to said patient a ribonucleic acid according to claim 1.

31. (Currently amended) A cell comprising a ribonucleic acid according to claim ~~1~~ 11.

32. (Original) An organism comprising a cell according to claim 31.

33. (New) The ribonucleic acid according to claim 11, wherein the length of the double-stranded structure is from about 17 to 21 bases.